

ORIGINAL

BEFORE THE

Federal Communications Commission

WASHINGTON, D.C. 20554

MAR 21 1994

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

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CC Docket No. 92-297

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of

Establishing an Advisory Committee to Negotiate
Regulations Defining the Technical Rules
Appropriate to Sharing the 27.5-29.5 GHz Band
by the Proposed Local Multipoint Distribution
Service and by Satellite Services

To: The Commission

COMMENTS OF TRW INC.

TRW Inc. ("TRW"), by its attorneys and pursuant to the Commission's February 11, 1994 public notice in the above-captioned proceeding,^{1/} hereby comments on, and confirms its intention to participate in, a proposed negotiated rulemaking proceeding, the purpose of which is to negotiate regulations defining the technical rules appropriate to sharing the 27.5-29.5 GHz band by the proposed Local Multipoint Distribution Service ("LMDS") and by satellite services.

In May 1991, TRW applied for authority to use a portion of the immediately adjacent Fixed-Satellite Service ("FSS") allocation at 29.5-30.0 GHz (the upper 100 megahertz of which is also allocated to the Mobile-Satellite Service ("MSS")) for feeder links for its proposed non-geostationary "MSS Above 1 GHz" system.^{2/} The Commission concluded its spectrum allocation proceeding (ET Docket No. 92-28) for the MSS Above

^{1/} Public Notice, "FCC Asks for Comments Regarding the Establishment of an Advisory Committee to Negotiate Proposed Regulations" (released February 11, 1994), reprinted at 59 Fed. Reg. 7961 (February 17, 1994) ("February 11 Public Notice"). The February 11 Public Notice, as published in the Federal Register, established March 21, 1994 as the deadline for comments. 59 Fed. Reg. at 7961.

^{2/} See Application of TRW Inc., File Nos. 20-DSS-P-91(12) and CSS-91-015.

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1 GHz service in the 1610-1626.5 MHz and 2483.5-2500 MHz bands earlier this year,^{3/} and following the completion in April 1993 of a negotiated rulemaking proceeding designed to establish the technical and operating rules for the MSS Above 1 GHz service, the Commission last month released a comprehensive notice of proposed rulemaking that will hopefully lead to the issuance of initial system licenses by the end of 1994.^{4/}

TRW has been an active proponent of the use of the FSS (and FSS/MSS) allocation at 27.5-30.0 GHz, and the companion allocation at 17.7-20.2 GHz, for feeder links for the MSS Above 1 GHz systems. TRW participated in the preparation and prosecution of the U.S. Government's positions on these bands at the 1992 World Administrative Radio Conference, and in the development of the issues relating to non-geostationary satellite use of FSS bands that were broached at the 1993 World Radiocommunication Conference. In between, it participated in the development of materials that the MSS Above 1 GHz Negotiated Rulemaking Committee (the "MSS Committee")

^{3/} See Amendment of Section 2.106 of the Commission's Rules to Allocate the 1610-1626.5 MHz and the 2483.5-2500 MHz Bands for Use by the Mobile-Satellite Service, Including Non-Geostationary Satellites, FCC 93-547 (released January 12, 1994). The Commission stated its belief that the existing FSS bands -- especially those not heavily used by geostationary FSS systems -- are sufficient to begin accommodating MSS feeder links. *Id.*, slip op. at 15. The Commission pledged to investigate "all options to ensure that adequate unencumbered spectrum is available for accommodating both immediate and future feeder link requirements." *Id.* at 17 (emphasis added).

^{4/} Amendment of the Commission's Rules to Establish Rules and Policies Pertaining to a Mobile Satellite Service in the 1610-1626.5/2483.5-2500 MHz Frequency Bands, FCC 94-11 (released February 1994) ("MSS NPRM").

prepared for submission as comments in response to the Commission's notice of proposed rule making in the LMDS proceeding in CC Docket No. 92-297.^{5/}

When TRW filed its MSS Above 1 GHz application, the only other MSS system to propose the use of 20/30 GHz FSS frequencies for feeder links was Motorola Satellite Communications, Inc. ("Motorola"), which proposed different frequencies than TRW.^{6/} In addition, only one geostationary FSS system had been authorized to use the band, and no other 20/30 GHz band satellite applications were pending.

Since 1991, however, several events of significance have transpired with regard to the 20/30 GHz band frequencies. First of all, the Commission proposed in the instant proceeding to allocate two gigahertz of the 27.5-30.0 GHz band to the terrestrial LMDS service on a co-primary basis -- and presented a somewhat bleak, albeit preliminary, assessment of the prospects for spectrum sharing between satellite and LMDS users.^{7/} Next, late last year, Hughes Communications Galaxy, Inc. ("Hughes") applied for a

^{5/} See Rulemaking to Amend Part 1 and Part 21 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band and to Establish Rules and Policies for Local Multipoint Distribution Service, 8 FCC Rcd 557 (1993) (Notice of Proposed Rule Making, Tentative Decision, and Order on Reconsideration) ("LMDS NPRM").

^{6/} Motorola proposes to use 200 megahertz of spectrum in each direction (including the band segment at 29.1-29.3 GHz) for its feeder links, while TRW's application seeks the use of approximately 101 megahertz in each direction (most likely at the upper end of the respective uplink and downlink bands -- i.e., at 29.9-30.0 GHz and 20.1-20.2 GHz). Because of changes in its system design parameters, TRW may increase its feeder link requirements -- again preferably at the top end of each band segment. TRW will keep the Commission apprised, as appropriate, of developments in this regard.

^{7/} See LMDS NPRM, 8 FCC Rcd at 560 ("the multicell multipoint configurations in this proposal envision a wide area distribution of services which may foreclose the possibility of acceptable sharing conditions between satellite and terrestrial services").

geostationary satellite system that would operate both in the upper 500 megahertz of the proposed LMDS allocation and in the 500 megahertz at 29.5-30.0 GHz in which TRW would locate the feeder links for its proposed MSS Above 1 GHz system.^{8/} News reports over the last year or so intimate that a third 20/30 GHz band satellite system application is "imminent." Finally, the Commission announced in its MSS NPRM that it expects in the instant proceeding "to be able to identify sufficient spectrum within [the 27.5-30.0 GHz] band to satisfy the Earth-to-space feeder link requirements of all MSS Above 1 GHz applicants that may be licensed in [the CC Docket No. 92-166] proceeding."^{9/} This last development would mean that the three MSS Above 1 GHz applicants that have applied or indicated an intention to apply for feeder links in frequencies in the 5 GHz range may have to be accommodated in the 20/30 GHz band as well. In short, the sharing environment for the 27.5-30.0 GHz band -- and by implication for the companion satellite band at 17.7-20.2 GHz -- has become increasingly complicated in the years following the submission of compatible feeder link proposals by TRW and Motorola.

TRW believes that the Commission should establish the Federal Advisory Committee referenced in the February 11 Public Notice. A committee comprised of representatives from the parties interested in operating systems in the 27.5-29.5 GHz bands -- including representatives of parties whose systems would operate in the continuation of the FSS allocation at 29.5-30.0 GHz and/or in the companion satellite allocation at 17.7-20.2 GHz -- could be expected to negotiate in good faith in an attempt to reach consensus on a

^{8/} Hughes's "Spaceway" application has yet to be placed on public notice.

^{9/} MSS NPRM, FCC 94-11, slip op. at 38 (emphasis added).

technical plan that would allow sharing of the band between affected LMDS and satellite interests. In this regard, TRW believes that the Federal Advisory Committee, if established, should have broad authority to consider issues that focus on the impact of satellite/LMDS sharing at 27.5-29.5 GHz on the adjacent and companion satellite allocations, and other spectrum matters.^{10/}

In Paragraph 8 of the February 11 Public Notice, the Commission identifies all of the parties whose interests are significantly affected by the sharing question. TRW is on this list, and respectfully confirms its intention to participate fully in the deliberations of the Commission's proposed Federal Advisory Committee, if such a committee is to be established. TRW has, as noted above, demonstrated its ongoing interest in the use of the FSS band at 27.5-30.0 GHz. It is justifiably concerned about the impact that reformation of the feeder link requests of the three MSS Above 1 GHz applicants who do not presently propose to operate feeder links in the 20/30 GHz bands could have on TRW's system. TRW is also concerned about the impact from any potential relocation of Motorola's feeder links due to their direct overlap with the LMDS proposal, and about the effect that one or more

^{10/} TRW notes that in its Second Notice of Proposed Rule Making in the LMDS proceeding, which was released on the same day as the February 11 Public Notice, the Commission expressly contemplated that the committee it was considering whether to establish could deliberate on and make recommendations about the possible assignment of the LMDS service to frequency bands above 30.0 GHz. See Rulemaking to Amend Part 1 and Part 21 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band and to Establish Rules and Policies for Local Multipoint Distribution Service, FCC 94-12, slip op. at 9 n.15 (released February 11, 1994) (Second Notice of Proposed Rule Making). In view of the skepticism the Commission expressed in its LMDS NPRM about the prospects of satellite/LMDS sharing (see note 6, supra), TRW welcomes the opportunity to expand the breadth of the committee's work program to include alternate frequency bands for possible LMDS use.

geostationary FSS systems may have on the satellite/LMDS sharing dynamic in any overlapping band segments.

TRW clearly is a party that is significantly affected by the LMDS proposals. Moreover, the concerns raised above are sufficiently unique to TRW so that no other entity (identified by the Commission or not) is able adequately to represent TRW's interests in this matter. TRW believes that the committee membership suggested by the Commission reflects a balanced representation of the affected interests.

As it did in connection with the establishment of a negotiated rulemaking committee in CC Docket No. 92-166, TRW urges the Commission to permit committee participants to name multiple persons who can represent the interests of each participant, with the understanding that only one person may represent and speak on behalf of each participant at any one time. Clearly, given the multiple factors that must be addressed in resolving the sharing issue, the subject matters for discussion may not be amendable to having only one "official" representative for each participant. TRW therefore names the following individuals to represent its interests on the advisory committee:

Roger Rusch	(TRW Inc.)
Eric Wiswell	(TRW Inc.)
Norman Leventhal	(Leventhal, Senter & Lerman)
Stephen Baruch	(Leventhal, Senter & Lerman)
David Keir	(Leventhal, Senter & Lerman)

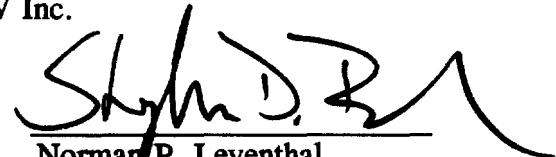
CONCLUSION

In sum, TRW stands prepared to work in good faith with the other members of the Federal Advisory Committee that may be established in this proceeding. It believes that it should be possible for such a committee to develop through negotiation technical rules appropriate to fostering sharing between LMDS users and satellite users whose interests overlap in the 27.5-29.5 GHz bands. TRW, however, calls upon the Commission not to delay licensing of the use of the 29.5-30.0 GHz band for MSS Above 1 GHz service feeder link operations during the pendency of the LMDS proceeding in CC Docket No. 92-297.

Respectfully submitted,

TRW Inc.

By:



Norman P. Leventhal
Stephen D. Baruch

Leventhal, Senter & Lerman
2000 K Street, N.W.
Suite 600
Washington, D.C. 20006
(202) 429-8970

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Its Attorneys